Work Order ID 104710 July-17-13 9:17:32 AM				*104					Page 1		
Item ID: Revision ID: Item Name:	D3929-042 Gusset Assemb	ply		Accept	*N900	040	100)* 5	Setup Sta	170	S1* S2*
Start Date: Required Date: Reference:	7/17/13 : 7/17/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item I Customer:	D:					
Approvals:	Process Pla	n:	Date:	Tooling: SPC (Y/N):		ate:		l	Run Sta Sto	1/1	R1* R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Rev	ision Nbr									
D3929 100 *100 Waterjet FLOW CNC Water	jet	Memo 1-Cut as per Dwg Rev: Prog Rev: 2-Deburr if		0.00							
*110 *110* QC Quality Control	·	QC2- Inspect parts off m	nachine FAI/FAIB	Logaqo uzde ou pull ou	(25 170470					,	

Work Orde		94710			*104	1710*					***************************************	Page 2
Item ID: Revision ID: Item Name:	D3929-042 Gusset Assen	nbly	- Marie - 1, a pr 7 (a	į.	Accept	*N900	040	100)*	Setup St	•	NS1* NS2*
Start Date: Required Date: Reference:	7/17/13 7/17/13	Start Qty: 6.00 Req'd Qty: 6.00		*6* *6*		Cust Item I Customer:	D:				•	u. 17
Approvals:		an:			Tooling: SPC (Y/N):		ate:				top	VR1* VR2*
Sequence ID/ Work Center II 120 *120* QC Quality Control	D	Operation Description QC8- Inspect parts - seco	ond check	,	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accep Qty	t Reject Qty	Reject Numb	-
*140 *140* Large Fab Large Fab		\	_	as per dwg D39		AL			CC	13-7	2.17	6

150

Quality Control

QC9- Inspect visual per QSI004- Fusion Welds

Memo

0.00

0.00

Work Order ID 104710 *104710* Page 3 July-17-13 9:17:32 AM Item ID: D3929-042 Accept *N900040100* Setup Start **Revision ID:** Item Name: Gusset Assembly Start Qty: 6.00 **Start Date:** 7/17/13 **Cust Item ID:** Required Date: 7/17/13 Req'd Qty: 6.00 **Customer:** Reference: Run Tooling: Process Plan: _____ Approvals: Date: Date: Stop Date: _____ SPC (Y/N): Date: Sequence ID/ Set Up/ **Tool ID** Tool # Plan Reject Reject Operation ' Accept Insp. Work Center ID Description Code Qty Qty Number Stamp **Run Hours** DAS QC5- Inspect part completeness to step on W/O 160 0.00 *160* (D) B-07-15 0.00 Memo Quality Control Identify as per dwg & Stock Location: 170 6x CC 13-7-18 *170* Packaging Memo Packaging 180 QC21- Final Inspection - Work Order Release 0.00 *180*

0.00

Memo

QC

Quality Control

ME

13-7-18

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99910

April-15-13 2:39:45 PM

Item ID:

D3929-041

Accept

N900040100

Setup Start

Page 2

Revision ID: Item Name:

Start Date:

Gusset Assembly

Required Date: 4/19/13

4/15/13

Start Otv: 6.00 Rea'd Otv: 6.00

Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID Operation Description

Set Up/ **Run Hours**

Tool # Plan

Accept Oty

Reject Reject Number Stamp Otv

ll 13-7-11

Insp.

120

120 OC

Quality Control

Memo

QC8- Inspect parts - second check

0.00 0.00 Ky 16

Code

140

140 Large Fab

0.00

Memo

0.00

Large Fab

Weld bushings D3907-1 as per dwg D3929

316L rod batch: B 123873

150

150

Quality Control

QC9- Inspect visual per QSI004- Fusion Welds

0.00 Dec UV/0 B104710

Memo

NCR: Y	'es	/ No				WORK ORDER NON-	100	NFOR	MANCE / UPI	DATE			
									<u> </u>		QA Closed:	Date	:
Work Orde	er:					DISPOSITION	_		_	AGAINST DE	PARTMENT/	PROCESS	_
4						Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo.					Scrap		1	Machining	Small Fab	⊣	d. Eng. Coor.	Quality
						Use-as-is]	Thern	noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	۱o					Work Order Update]		Large Fab	Composite	_	Supplier	
							لب			. •	T c: 0 T		1
Root		. .	<u>.</u>	۵.		ption of work order update	1	nitial	1	tion	Sign &	Manification	OC Increases
Cause		Date	Step	Qty	•	or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data	Н												
Equip/Tooling	Н						1						
Operator	Н												
Material	\dashv						1						
Setup	Н				ļ								1
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Process	Н												
Supplier	Н						1						
Training	Н			İ	<u> </u>								
Unapproved	Ш		i	<u> </u>	<u> </u>	Ε	. A I II	T CATE	GORY				<u> </u>
Landi	ng G					General	701	.i CAIL	<u> </u>				
	_	Bending				Bend	Г	Grain			Ovalized	Г	Pressure/Forced
	-	Centre No	ot Conce	ntric to	0/5	BOM/Route	\vdash	Hardwa	are		Over/Under	tolerance	Temperature/Cure
		Cracks			·	Broken/Damaged	十	4	ion Incomplete		Part Incorred		Weld
	Н	Crushed/	Crimped			Burrs	\vdash	1	tions Incomplete/	Unclear —	Part Lost/Mi	<u> </u>	Wrong Stock Pulled
	\vdash	Cuffs			<u> </u>	Contamination		4	enance		Part Moved	·	
	-	Heat Trea	ət		一	Countersink		Mislab		 	Positioned V	/rong	
	\vdash	Inspectio		Tube	<u> </u>	Cut Too Short		Misrea		<u> </u>	Power Loss/		Other
	\vdash	Ripples in				Drill Holes-		Offset		L	····	- L.	
		Torque W		Extrusio	n 🗀	Drawing		Out of	Calibration				

Out of Sequence

Outside Dimensions

Date:

DQA:

Turning Sequence

Wave/Twist in Tube

Finish

July-17-13 9:17:32 AM

Work Order ID:

104710

Parent Item:

D3929-042

Parent Item Name:

Gusset Assembly

Start Date: 7/17/13

Required Date: 7/17/13

Start Qty: 6.00

Required Qty: 6.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3929-041		Manufactured	No				Each	10.0000		6			
Gusset Assembly									,				

<u>Location</u>	Loc Qty	Loc Code	
WA004	8		
85715	3		
98471	5		
WA005	2		
77675	1		
81255	1		•

9990

6

4pril-15-13 2:39:45 PM

QC

Quality Control

Item ID: D3929-041 Accept *N900040100* Setup Start Revision ID: Item Name: Gusset Assembly Start Date: 4/15/13 Start Otv: 6.00 **Cust Item ID:** Required Date: 4/19/13 Rea'd Otv: 6.00 **Customer:** Reference: Run Start Approvals: **Process Plan:** MLJ Date: 13-04-15 Tooling: Date: Stop OC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Reject Accept Insp. **Work Center ID** Description **Run Hours** Code Otv Stamp Otv Number Draw Nbr Revision Nbr D3929 Rev A 100 ₹0.00 *100* Waterjet 0.00 Memo FLOW CNC Waterjet 1-Cut as per Dwg D3929 Dwg Rev: A Prog Rev: A 2-Deburr if necessary 110 QC2- Inspect parts off machine FAI/FAIB 0.00 *110*

0.00

Memo

											DQA:	Date	e:
NCR: Y	es /	No				WORK ORDER NON-C	ON	IFORN	MANCE / UP	DATE			
											QA Closed	: Date	2:
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	 lo				t	Rework Scrap Use-as-is Work Order Update		t Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	→	Water Jet od. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root	\top	,	-		Descri	ption of work order update	1	nitial	Act	tion	Sign &	1	Ţ
Cause		Date	Step	Qty		or Non-conformance		ief Eng		ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator													
Material												1	
Setup													
Other													
Process								i	ų.			1	
Supplier												:	
Training													
Unapproved	П												
						F/	AUL	T CATE	GORY				
Landi	ng Gea	ar				General		_			=	_	_
	Ве	ending				Bend		Grain			Ovalized		Pressure/Forced
	Ce	entre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	ire		Over/Unde	r tolerance	Temperature/Cure
	Cr	acks				Broken/Damaged		Inspecti	ion Incomplete		Part Incorre	ect	Weld
	Cı	rushed/	Crimped			Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/M	lissing	Wrong Stock Pulled
	Cı	uffs				Contamination		Mainte	enance		Part Moved	1	
	Пн	eat Trea	ıt			Countersink	Г	Mislabe	eled		Positioned	Wrong	
	In	spectio	n Strip in	Tube		Cut Too Short		Misread	j	-	Power Loss	/Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Work Order ID 99910

April-15-13 2:39:45 PM

99910

Item ID: D3929-041 Accept *N900040100* Setup Start **Revision ID:** Item Name: Gusset Assembly **Start Date:** 4/15/13 Start Qty: 6.00 Cust Item ID: Required Date: 4/19/13 Req'd Qty: 6.00 **Customer:** Reference: Run Approvals: **Process Plan:** Date: Tooling: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Plan Set Up/ Tool ID Tool# Reject Accept Reject Insp. **Work Center ID** Description **Run Hours** Qty Code Qty Number Stamp 160 QC5- Inspect part completeness to step on W/O 0.00 *160* QC 0.00 Memo Quality Control B104710 170 Identify as per dwg & Stock Location: 0.00 *170* Packaging SFE W/0 3104710 Memo Packaging 180 QC21- Final Inspection - Work Order Release 0.00 *180* Memo 0.00 MF 12-7-18 Quality Control

NCR: Y	'es	/ No				WORK ORDER NON-C	COP	VFORM	MANCE / UPI	DATE				
											QA Closed:	Da	te:	
						DISPOSITION				AGAINST DE	PARTMENT	PROCESS		
Work Orde	er: _					Daa.w/	1		المطابية لمنايات	Crosstube	7	Water Jet		ngineering
Part N	l۵				•	Rework Scrap	1 1		Skid-tube Machining	Small Fab	Pro	d. Eng. Coor.		Quality
raitiv	10					Use-as-is	┪┃		noforming	Finishing	-1	e/Packaging	\vdash	Other
NCR N	lo.					Work Order Update	1		Large Fab	Composite	1 1100,0101	Supplier	_	H
					 	<u> </u>	_		, <u> </u>	· •	-	• •		
Root					Descri	ption of work order update	l	nitial	Act	tion	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verificatio	n	QC Inspector
Doc/Data														
Equip/Tooling														
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Material														
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Other	\Box								 					
Process														
Supplier									.t					
Training													ļ	
Unapproved			<u> </u>	<u> </u>										·····
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Landi	_				_	General	_	,		_	7			
	\vdash	Bending			L	Bend	<u> </u>	Grain		<u> </u>	Ovalized		_	essure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route	\perp	Hardwa		ļ	Over/Under		_	mperature/Cure
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	-	Crushed/	Crimped			Burrs	\vdash	4	tions Incomplete/	Unclear	Part Lost/Mi	ssing	∐Wr	ong Stock Pulled
	\vdash	Cuffs			$oxedsymbol{oxed}$	Contamination		Mainte		ļ	Part Moved			
	-	Heat Trea			\perp	Countersink	 	Mislabe		<u> </u>	Positioned V	-		
	-	Inspectio		Tube	<u>_</u>	Cut Too Short	\vdash	Misread	d	·	Power Loss/	Surge	Otl	her
		Ripples in			<u></u>	Drill Holes	\vdash	Offset						
		Torque W	Vaves in 1	Extrusio	n	Drawing		Out of	Calibration					

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Picklist Print

April-15-13 2:39:48 PM

Work Order ID: 99910

99910

D3929-041 Parent Item:

D3907-1

Parent Item Name: Gusset Assembly

D3929-041

Start Date: 4/15/13

Required Date: 4/19/13

Start Qty: 6.00

**

Required Qty: 6.00

CC 13-7-11

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S11GA		Purchased	No			100	sf	201.9300	0.45	2 .84210 5			
M304S11 304/316 0.125 Sheet	GA								**	29			Jm13-4-16
				Location		Loc	<u>Qty</u>	Loc Code					
				MAT020		20	1.93		_				
					122521	2	4.93		_				
					124445		177		le	34445			
D3907-1		Manufactured	No			130	Each	64.0000	2	12			

Location	Loc Qty	Loc Code	
WA004	64		
88891	1		-
89688	1		
96302	5		
98736	17		
98876	40		Ċ

NCR: Y	'es /	No				WORK ORDER NON-C	OI	1FORN	MANCE / UPI	DATE			
						<u> </u>					QA Closed:	Date	:
Work Orde	er:		•			DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part N					,	Rework Scrap Use-as-is		!	Skid-tube Machining moforming	Crosstube Small Fab Finishing		Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	lo					Work Order Update			Large Fab	Composite	Nec/3tol	Supplier	
Root					Descri	ption of work order update	1	nitial	Act	tion	Sign &		
Cause	D	ate	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator	_												
Material	4												
Setup		ŀ											
Other									,				
Process		- 1							, ز				
Supplier	\dashv									•			1
Training	-												
Unapproved	Ш						<u> </u>	T CATE	CORY				<u> </u>
Landii	ng Gear					General	HOL	CAIL	JOKI				
Landi	_	ding				Bend		Grain			Ovalized	Γ	Pressure/Forced
	—	_	Concer	ntric to (_{2/5}	BOM/Route	—	Hardwa	are		Over/Under	tolerance	Temperature/Cure
	Cra				"	Broken/Damaged	H	ł	ion Incomplete		Part Incorre	 	Weld
	\vdash	shed/C	rimped			Burrs	\vdash	i i	tions Incomplete/	Unclear	Part Lost/Mi	⊢	Wrong Stock Pulled
	Cuf					Contamination	H	1	enance	<u> </u>	Part Moved	_	-
	—	at Treat				Countersink		Mislabe			Positioned V	Vrong	
	\vdash		Strip in	Tube		Cut Too Short		Misrea	d		Power Loss/	Surge	Other
	\vdash	ples in E			-	Drill Holes		Offset			•	_	-
	Tor	que Wa	ives in E	xtrusio	n	Drawing		Out of	Calibration				
	Tur	ning Se	quence		<u> </u>	Finish		Out of	Sequence				

Outside Dimensions

Date:

Wave/Twist in Tube

DART AEROSPACE LTD	Work Order:	99910
Description: Support Gusset	Part Number:	D3929-1
Inspection Dwg: D3929 Rev: A		Page 1 of 1

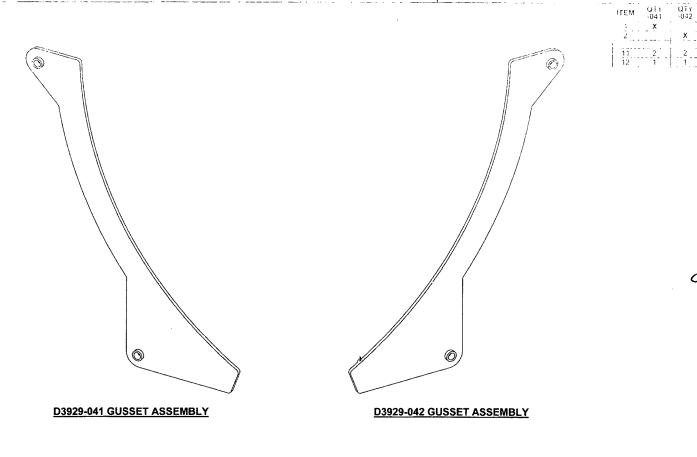
FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing		Actual Accept Reju		Method of	·	
Dimension	Tolerance		Accept	Reject	Inspection	Comments
Ø0.375	+0.006/-0.001	0.375"	_		V	JLmc1
0.500	+/-0.010	0.506"	_		V	
0.500	+/-0.010	0.505			V	
4.036	+/-0.010	4.036			V	
4.382	+/-0.010	4.382	_		V	
8.274	+/-0.010	8.2742	-		V	
10.915	+/-0.010	10.915	_		Ú.	Productors
1.000	+/-0.010	\co3^	-		V	
11.198	+/-0.010	11.198"	·-		U	
0.500	+/-0.010	0.500			V	
1.572	+/-0.010	1.580"	_		V	
0.125	+/-0.010	0.117			ν	
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Measured by:	JM	Audited by: 5M		Prototype Approval: N/A		
Date:	13-4-16	Date:	13416	Date:	N/A	

R	ev	Date	Change		Rev	ised by	,	Approved	٦
	4	09.05.27	New Issue	P/O D3929-041/-042	KJ	ملا		1/2	٦
					 	- ! ^}			



13-04-15

03929-041

D3929-042

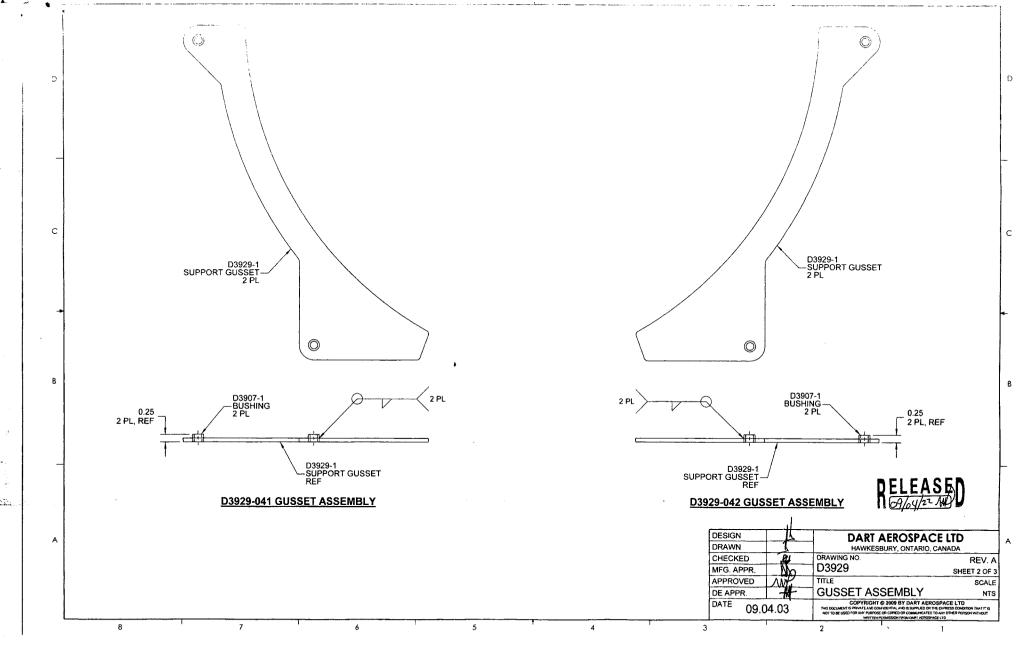
GUSSET ASSEMBLY

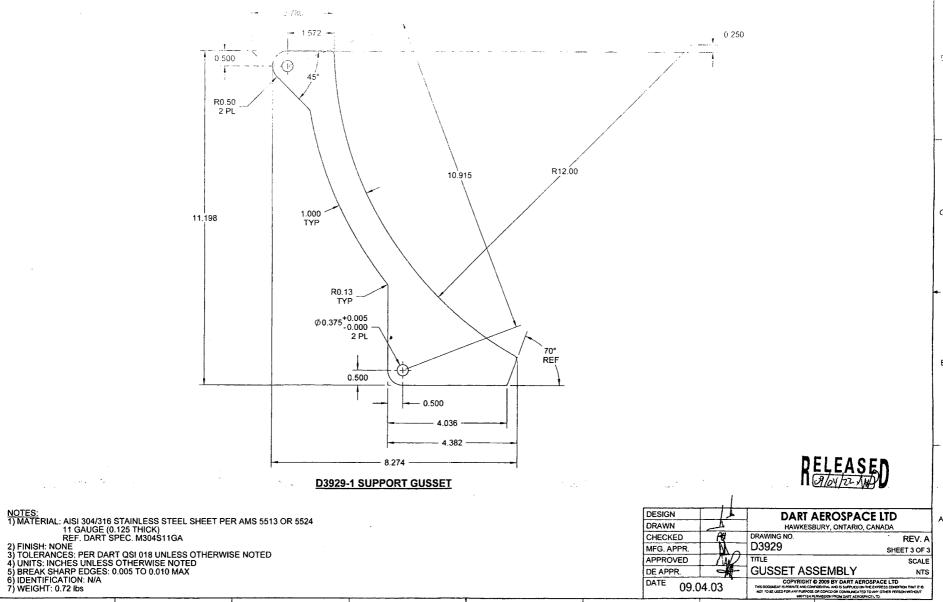
GUSSET ASSEMBLY

BUSHING SUPPORT GUSSET

Α	NEW ISSUE			MB	09.04.03		
REV.			DESCRIPTION B'		DATE		
DESIG	DESIGN		DART AEROSPACE LTD				
DRAWN		کے	HAWKESBURY, ONTARIO, CANADA				
CHECKED PAK		P&k	DRAWING NO.		REV. A		
MFG. APPR.		M	□D3929		SHEET 1 OF 3		
APPRO	VED	SIME	TITLE		SCALE		
DE APPR.		4	GUSSET ASSEMBLY NTS				
DATE 09 04 03		14.03	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONTROL AND IS SUPPLED ON THE EXPRESS CONDITION THAT IT IS				

NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3929-04X" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 0.73 lbs EACH
8) WELDING: PER DART QSI 004





NOTES: 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER AMS 5513 OR 5524 11 GAUGE (0.125 THICK) REF. DART SPEC. M304S11GA